

Notice of Allowability

Application No.

10/685,929

Applicant(s)

RENTSCHLER ET AL.

Examiner

Hong C. Kim

Art Unit

2186

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on 7/14/05.
2. ☒ The allowed claim(s) is/are 1-20.
3. ☒ The drawings filed on 14 October 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

PD

Detailed Action

1. Claims 1-20 are presented for examination. This office action is in response to the amendment filed on 7/14/05.
2. The terminal disclaimer filed on 7/14/2005 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of US Patent No. 6,625,702 has been reviewed and is accepted. The terminal disclaimer has been recorded.

REASONS for ALLOWANCE

3. The following is an Examiner's statement of reasons for the indication of allowable subject matter: claims 1-20 are allowable over the prior art of record because the arguments set forth in the amendment filed on 7/14/05 are persuasive and because an update of a search previously made does not detect the combined claimed elements as set forth in the claims 1-20. Specifically, claims are allowable over the prior art of record because none of the prior art of record teaches or fairly suggests 1) a memory controller comprises a memory to store indications of data/strobe ratios, subsets of strobe drivers, and a switching network to associate at least some of the strobe receivers with at least some of data receivers, wherein the switching network receives addressed indications of data/strobe ratios during read cycles of the memory controller, and wherein the switching network associates different ones of the strobe receivers with the data receivers in response to different indications of data/strobe ratios; 2) a memory

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controller comprises a memory to store indications of data/strobe ratios that are required to access memory devices; and a memory interface through which the memory controller initiates data transmissions with the memory devices; wherein, for a data transmission initiated with a particular one of the memory devices, the ratio of data signals to strobe signals sent/received through the interface is dynamically determined in response to a corresponding indication of a data/strobe ratio stored in the memory; and 3) a memory controller comprises a plurality of data pads; a plurality of strobe pads; means for reading a data width from each of a number of memory devices and means for associating ones of the strobe pads with ones of said data pads when communicating with the memory devices, in one or more of a plurality of data/strobe ratios supported by the memory controller, and in data/strobe ratio(s) determined by the data width(s) read from the number of memory devices as described in the specification and together with combination of other claimed element as set forth in the claims.

Therefore, claims 1-20 are allowable over the prior art of records.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the Issue Fee and, to avoid processing delays, should preferably **accompany** the Issue Fee. Such submissions should be clearly labeled "Comments on Statement of Reasons For Allowance."

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hong C Kim whose telephone number is (571) 272-4181. The examiner can normally be reached on M-F 9:00 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt M Kim can be reached on (571) 272-4182. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

6. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

7. **Any response to this action should be mailed to:**

Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

or faxed to TC-2100:
571-273-8300

Hand-delivered responses should be brought to the Customer Service Window (Randolph Building, 401 Dulany Street, Alexandria, VA 22314).

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HK

Primary Patent Examiner

July 30, 2005

A handwritten signature in black ink, appearing to be 'J. H. K.', is written over the text 'Primary Patent Examiner'.